

ABSTRACT OF THE DISCLOSURE

In a symmetric stable optical resonator, a first reference plane is set at an arbitrary position between the endface, of a rod-type solid-state laser medium (1), that opposes a partially reflecting mirror (2) and the middle
5 point of the rod-type solid-state laser medium (1), an aperture (5) having the same opening diameter as the diameter of the rod-type solid-state laser medium (1) is arranged at the position that, with reference to the partially reflecting mirror (2), is optically symmetric with the first reference plane, the first reference plane is transfer-relayed to the incident endface of an
10 optical fiber (8), by means of a relay lens (6) and a coupling lens (7) that are arranged the aperture (5) and an optical fiber (8), and the aperture (5) is transferred onto the coupling lens (7), by means of the relay lens (6). As a result, even in the case where the focal length of the thermal lens of the rod-type solid-state laser medium (1) or the laser-beam pointing fluctuates,
15 stable and high-reliability laser-beam transmission is implemented through the optical fiber and the convergence of a laser beam that exits from the optical fiber is maintained to be constant.